Listing of Claims

Claim 1 (Original): A method of enabling a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second layer-3 network address space, said method comprising:

configuring a first network device to replace said old address with said new address in a destination address field of a packet sent by said correspondent node, wherein said first network device is located in a path from said correspondent node to said mobile node,

wherein said configuring is performed after said mobile node moves from said old location to said new location,

wherein said configuring enables said correspondent node to continue to send packets using said old layer-3 address even after said mobile node is assigned said new address.

Claim 2 (Original): The method of claim 1, further comprises configuring a second network device in said path to cause said second network device to replace said new address in said packet with said old address prior to delivering said packet to said mobile node such that said mobile node receives said packet with said old address in said destination address field.

Claim 3 (Original): The method of claim 2, further comprising configuring a static route on said second network device to cause said packet with said new address in said destination address field to be delivered to said mobile node in said second layer-3 address space.

Claim 4 (Original): The method of claim 3, wherein said configuring a second network device and said configuring a static route are performed from a proxy server located in said new location.

Claim 5 (Original): The method of claim 4, said method further comprising:

receiving a registration message in said proxy server from said mobile node in said new location;

receiving data representing said old address in said proxy server; and

sending a configuration message to said second network device to store in a network address translation (NAT) table a mapping of said new address to said old address.

Claim 6 (Original): The method of claim 5, wherein said registration message contains said data representing said old address.

Claim 7 (Original): The method of claim 6, wherein said first network device comprises a first router located at a first hop from said correspondent node, and said second network device comprises a second router located at a first hop from said mobile node in said new location.

Claim 8 (Original): The method of claim 1, further comprising:

determining in said mobile node that said session is active between said mobile node and said correspondent node; and

sending a notification message to a server close to said correspondent node after said mobile node moves to said new location, wherein said notification message requests said configuring.

Claim 9 (Original): The method of claim 8, wherein said server causes said configuring in response to receiving said notification message, wherein said notification message contains said new address and said old address.

Claim 10 (Original): The method of claim 9, wherein said server is implemented according to Session Initiation Protocol (SIP).

Claim 11 (Currently Amended): A method of enabling a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old

address in said old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second layer-3 network address space, ~~said method being performed in a server,~~ said method comprising:

receiving in ~~said~~ a first server said old address and said new address after said mobile node has moved from said old location to said new location, wherein said first server comprises a proxy server for said correspondent node; and

configuring from said first server a network device ~~to cause said network device to replace said old address with said new address or said new address with said old address in a packet~~, wherein said network device is located in a path between said mobile node and said correspondent node,

wherein said network device comprises a first hop router at a first hop from said correspondent node, and

said configuring comprises storing a mapping entry in a network address translation (NAT) table which causes said first hop router to map said old address in a destination address field of a packet to said new address.

Claims 12 - 13 (Canceled)

Claim 14 (Currently Amended): The method of claim 11 ~~13~~, ~~wherein said server comprises a proxy server serving said mobile node in said new location, wherein said first hop router is at a first hop from said mobile node, and~~ wherein said old address and said new address are received in a registration message received from said mobile node and said first server performs said configuring upon receiving said registration message.

Claim 15 (Original): The method of claim 14, wherein said registration message is received according to Session Initiation Protocol (SIP).

Claim 16 (Currently Amended): The method of claim 14, wherein said configuring ~~comprises configuring~~ said configures a second router to map said new address in ~~a~~ said destination address field of ~~a~~ said packet to said old address, said method further comprising:

configuring a static route in said second router to cause said packet with said old address to be delivered to said mobile node in said new location.

Claim 17 (Canceled)

Claim 18 (Currently Amended): The method of claim 11 ~~17~~, wherein each of said new address and said old address comprises a Internet Protocol address.

Claim 19 (Previously Amended): A method of enabling a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location, said old address being contained in a first layer-3 network address space, said method being performed in said mobile node, said method comprising:

initiating assignment of a new address after moving to said new location, said new address being contained in a second layer-3 network address space;

receiving said new address;

sending said old address and said new address to a proxy server at said new location, wherein said proxy server configures a network address translation (NAT) table in a first network device using said old address and said new address;

determining a correspondent node related to said session; and

sending said old address and said new address to an another server serving said correspondent node, wherein said another server configures a NAT table in a second network device using said old address and said new address.

Claim 20 (Canceled)

Claim 21 (Currently Amended): A server enabling a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second

layer-3 network address space, said server comprising a proxy server for said correspondent node, ~~said method being performed in a server,~~ said server comprising:

a network interface receiving said old address and said new address after said mobile node has moved from said old location to said new location; and

a configuration block configuring a network device located in a path between said mobile node and said correspondent node, ~~to replace said old address with said new address or said new address with said old address in a packet~~ , said network device comprising a router at a first hop from said correspondent node, wherein said configuration block stores a mapping entry in a network address translation (NAT) table to cause said network device to map said old address in a destination address field of a packet to said new address.

Claims 22 - 27 (Canceled)

Claim 28 (Currently Amended): The server of claim 21 ~~27~~, wherein each of said new address and said old address comprises a Internet Protocol address.

Claim 29 (Canceled)

Claim 30 (Currently Amended): A server enabling a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second layer-3 network address space, said server comprising a proxy server for said correspondent node, said server comprising:

means for receiving in said server said old address and said new address after said mobile node has moved from said old location to said new location; and

means for configuring from said server a network device ~~to cause said network device to replace said old address with said new address or said new address with said old address in a packet~~, wherein said network device is located in a path between said mobile node and said correspondent node , said network device comprising a router at a first hop from said

correspondent node, wherein said configuration block stores a mapping entry in a network address translation (NAT) table to cause said network device to map said old address in a destination address field of a packet to said new address.

Claims 31 - 36 (Canceled)

Claim 37 (Currently Amended): The server of claim 30 ~~36~~, wherein each of said new address and said old address comprises an Internet Protocol address, and wherein said proxy server is integrated with said router into one box.

Claim 38 (Previously Amended): A mobile node in which a session between a mobile node and a correspondent node can continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location, said old address being contained in a first layer-3 network address space, said mobile node comprising:

means for initiating assignment of a new address after moving to said new location, said new address being contained in a second layer-3 network address space;

means for receiving said new address;

means for sending said old address and said new address to a proxy server at said new location, wherein said proxy server configures a network address translation (NAT) table in a first network device using said old address and said new address;

means for determining a correspondent node related to said session; and

means for sending said old address and said new address to an another server serving said correspondent node, wherein said another server configures a NAT table in a second network device using said old address and said new address.

Claim 39 (Canceled)

Claim 40 (Original): A system for enabling a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said

old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second layer-3 network address space, said system comprising:

means for configuring a first network device to replace said old address with said new address in a destination address field of a packet sent by said correspondent node, wherein said first network device is located in a path from said correspondent node to said mobile node,

wherein said configuring is performed after said mobile node moves from said old location to said new location,

wherein said configuring enables said correspondent node to continue to send packets using said old layer-3 address even after said mobile node is assigned said new address.

Claim 41 (Original): The system of claim 40, further comprises means for configuring a second network device in said path to cause said second network device to replace said new address in said packet with said old address prior to delivering said packet to said mobile node such that said mobile node receives said packet with said old address in said destination address field.

Claim 42 (Original): The system of claim 41, further comprising means for configuring a static route on said second network device to cause said packet with said new address in said destination address field to be delivered to said mobile node in said second layer-3 address space.

Claim 43 (Original): The system of claim 42, said system further comprising:

means for receiving a registration message in said proxy server from said mobile node in said new location;

means for receiving data representing said old address in said proxy server; and

means for sending a configuration message to said second network device to store in a network address translation (NAT) table a mapping of said new address to said old address.

Claim 44 (Original): The system of claim 43, wherein said registration message contains said data representing said old address.

Claim 45 (Original): The system of claim 44, wherein said first network device comprises a first router located at a first hop from said correspondent node, and said second network device comprises a second router located at a first hop from said mobile node in said new location.

Claim 46 (Original): The system of claim 40, further comprising:

means for determining in said mobile node that said session is active between said mobile node and said correspondent node; and

means for sending a notification message to a server close to said correspondent node after said mobile node moves to said new location, wherein said notification message requests said configuring.

Claim 47 (Original): A computer readable medium carrying one or more sequences of instructions for causing a system to enable a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second layer-3 network address space, wherein execution of said one or more sequences of instructions by one or more processors contained in said system causes said one or more processors to perform the action of:

configuring a first network device to replace said old address with said new address in a destination address field of a packet sent by said correspondent node, wherein said first network device is located in a path from said correspondent node to said mobile node,

wherein said configuring is performed after said mobile node moves from said old location to said new location,

wherein said configuring enables said correspondent node to continue to send packets using said old layer-3 address even after said mobile node is assigned said new address.

Claim 48 (Original): The computer program product claim 47, further comprises configuring a second network device in said path to cause said second network device to replace said new address in said packet with said old address prior to delivering said packet to said mobile node such that said mobile node receives said packet with said old address in said destination address field.

Claim 49 (Original): The computer program product of claim 48, further comprising configuring a static route on said second network device to cause said packet with said new address in said destination address field to be delivered to said mobile node in said second layer-3 address space.

Claim 50 (Original): The computer program product of claim 49, wherein said configuring a second network device and said configuring a static route are performed from a proxy server located in said new location.

Claim 51 (Original): The computer program product of claim 50, further comprising:

receiving a registration message in said proxy server from said mobile node in said new location;

receiving data representing said old address in said proxy server, and

sending a configuration message to said second network device to store in a network address translation (NAT) table a mapping of said new address to said old address.

Claim 52 (Original): The computer program product of claim 51, wherein said registration message contains said data representing said old address.

Claim 53 (Original): The computer program product of claim 52, wherein said first network device comprises a first router located at a first hop from said correspondent node, and said second network device comprises a second router located at a first hop from said mobile node in said new location.

Claim 54 (Original): The computer program product of claim 47, further comprising:

determining in said mobile node that said session is active between said mobile node and said correspondent node; and

sending a notification message to a server close to said correspondent node after said mobile node moves to said new location, wherein said notification message requests said configuring.

Claim 55 (Original): The computer program product of claim 54, wherein said server causes said configuring in response to receiving said notification message, wherein said notification message contains said new address and said old address.

Claim 56 (Original): The computer program product of claim 55, wherein said server is implemented according to Session Initiation Protocol (SIP).

Claim 57 (Currently Amended): A computer readable medium carrying one or more sequences of instructions for causing a server to enable a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, said server comprising a proxy server for said correspondent node, wherein said mobile node is assigned an old address in said old location and a new address in said new location, said old address being contained in a first layer-3 network address space and said new address being contained in a second layer-3 network address space, wherein execution of said one or more sequences of instructions by one or more processors contained in said server causes said one or more processors to perform the action of:

receiving in said server said old address and said new address after said mobile node has moved from said old location to said new location; and

configuring from said server a network device ~~to replace said old address with said new address or said new address with said old address in a packet~~, wherein said network device is located in a path between said mobile node and said correspondent node , said network device comprising a router at a first hop from said correspondent node, wherein said configuration block stores a mapping entry in a network address translation (NAT) table to

cause said network device to map said old address in a destination address field of a packet to said new address.

Claims 58 - 63 (Canceled)

Claim 64 (Currently Amended): The computer program product of claim 57 ~~63~~, wherein each of said new address and said old address comprises a Internet Protocol address.

Claim 65 (Previously Amended): A computer readable medium carrying one or more sequences of instructions for causing a system to enable a session between a mobile node and a correspondent node to continue without termination when said mobile node moves from an old location to a new location, wherein said mobile node is assigned an old address in said old location, said old address being contained in a first layer-3 network address space, wherein execution of said one or more sequences of instructions by one or more processors contained in said system causes said one or more processors to perform the action of:

initiating assignment of a new address after moving to said new location, said new address being contained in a second layer-3 network address space;

receiving said new address;

sending said old address and said new address to a proxy server at said new location, wherein said proxy server configures a network address translation (NAT) table in a first network device using said old address and said new address;

determining a correspondent node related to said session; and

sending said old address and said new address to an another server serving said correspondent node, wherein said another server configures a NAT table in a second network device using said old address and said new address.

Claim 66 (Canceled)